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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,994	01/10/2001	Pil-Jae Cho	5000-1-143	8508

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EXAMINER

NGUYEN, SIMON

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/757,994

**Applicant(s)**

CHO, PIL-JAE

**Examiner**

SIMON D NGUYEN

**Art Unit**

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 9-16, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp, Jr. (6,411,826) in view of Rudisill et al. (6,272,324) and Lutnaes (6,342,738 B1).

Regarding claim 1, Camp, Jr. discloses a flip type terminal (figs.2A, 3A, 4A), comprising:

A body including a position sensing receiver mounted in the main body (fig.1); a flip adapted for attachment to the body (fig. 4A); a slim-style micro-strip antenna (39C) which is mounted to the flip (column 6 lines 28-41); a hinge means (not shown) for mechanically connecting the body and the flip so that the flip is pivotable from: an open position wherein the flip projects out from the body at a predetermined angle relative to the body which permits optimal position sensing communication by the micro-strip antenna; and a closed position wherein the flip is substantially parallel to the body so that the micro-strip antenna is shielded between the flip and the body; and an RF circuit for electrically connecting the position sensing receiver and the micro-strip antenna so that the circuit flexes as the flip is moved between the closed position and the open

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position (fig.4A, column 4 lines 39-49). It should be noted that a hinge for closing and opening flip, and a printed circuit for connecting a RF circuit, both obviously includes in the flip phone which is known to those skilled in the art. However, Camp, Jr. does not specifically disclose a hinge and a printed circuit, a magnet on the flip and a switch on a main body.

Rudisill discloses a hinge for connecting a body and a flip so that the lip is pivotable (#82 of fig.1) and a printed circuit (column 5 line 54 to column 6 lines 49). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Camp, Jr., modified by Rudisill to provide the flexible operation of the contacts when the flip is closed or opened. However, Camp, Jr. and Rudisill do not specifically disclose a flip having a magnetic element and the main body having a switch.

Lutnaes discloses a flip phone having a magnet on the flip and a switch on the main body for detecting closing or opening the flip (column 4 lines 17-19). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Camp, Jr., modified by Rudisill, and further modified by Lutnaes to provide the reliable operation of the contacts for on-hook and off-hook conditions.

Regarding claim 15, this claim is rejected for the same reason as set forth in claim 1.

Regarding claims 2 and 16, Camp, Jr. further discloses a GPS receiver (fig.1).

Regarding claims 9-11, in the Camp, Jr., Camp, Jr. further discloses the patch antenna connected with the GPS receiver (fig.1), and the flip connected with the body at a lower end of the body (fig.4A).

Regarding claims 12-14, and 18-20, in the Camp, Jr., Camp, Jr. further discloses a second antenna (#23 of fig.1) arranged at an uppermost of the body for wireless communications and the patch antenna (39 of fig.1) and the second antenna are adapted to respectively transmit and different from each other (fig.1) and wherein Rudisill discloses the open position is depended on the objectives of the designer for the movable contact on the hinged over (column 6 lines 50-67) which means for an ideal position the flip and the body should be about 130-150 degrees as claimed. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Camp, Jr., modified by Lutnaes, and further modified by Rudisill to design an ideal angle in order to provide the best signal reception.

3. Claims 3-8, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp, Jr. (6,411,826) in view of Rudisill et al. (6,272,324) and Lutnaes (6,342,738) as applied to claim 1, and further in view of Nakada et al. (6,243,592).

Regarding claims 3-8, 17, in the modified Camp, Jr., and Rudisill discloses first and the second antennas in the flip (figs.2, 4), and a printed circuit (column 5 line 67, fig.4). It should be noted that the first antenna of Rudisill can be formed in an upper part of the flip and the second antenna can be formed in a lower part of the flip, which is a

choice since the applicant does not specifically claim why to install in such cases.

However, the modified Camp, Jr. fails to disclose a double-sided tape.

Nakada discloses a portable radio in which a double-sided tape is used for bonding antenna with a housing (column 3 lines 57-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have the modified Camp, Jr. system, modified by Nakada to use a double-sided tape to attaché the upper and lower part of the flip in order to assure the absolute distance against a high voltage between the shield cases.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 15 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (703) 308-1116. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Hand-delivered response should be brought to Crystal Park II,  
2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Simon Nguyen

March 24, 2004

*Simon Nguyen*